

DETAILED ACTION

1. This office action is responsive to communications filed on 10/12/2007.

Claims 1-14 are pending and have been examined.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/733,055. Although the conflicting claims are not identical, they are not patentably distinct from each other because *the inference engine* disclosed in the present application is performing the same function as in *utilizing the real-time connectivity information from client's systems to establish a network connection to a*

computer network. And although, one is a method claim, the other is a computer readable medium claim, it would be have been obvious to one of ordinary skill in the art at the time of invention was to made to implement the method claim in a computer readable medium. Therefore, it is sufficiently to conclude that the present application is an obvious variation of application: 10/733,055.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims of present application	Claims of application: 10/733,055
1. A method for re-establishing a network connection for a client computer system after a failed network connection, said method comprising: collecting real-time connectivity information by said client computer system; storing said real-time connectivity information in a local persistent knowledgebase within said client computer system; utilizing said real-time connectivity information by said client computer system to establish a network connection with a	Claim 1. A computer readable medium containing program instructions for establishing a connection between a client system and a network, the program instructions for: (a) collecting real time connectivity information by the client system, wherein the collecting instruction (a) further includes: (a1) monitoring and collecting network traffic in real time; (a2) assigning a weight to the real time network traffic based on popularity; and (a3) creating a weighted list from the

<p>computer network;</p> <p>determining whether or not a connection failure occurred at said network connection;</p> <p>in a determination that a failure occurred at said network connection, invoking an inference engine to utilize said real-time connectivity information in said local persistent knowledgebase to re-establish a network connection to said computer network.</p> <p>2. The method of claim 1, wherein said method further includes invoking a verify function by said inference engine to determine status of each communication device within said client computer system.</p> <p>3. The method of claim 2, wherein said method further includes determining a root cause of said connection failure by said inference engine based on status of each communication device.</p> <p>4. The method of claim 3, wherein said</p>	<p>weighted real time network traffic; and</p> <p>(b) utilizing the real time connectivity information by the client system to establish a connection with the network.</p> <p>Claim 8. The computer readable medium of claim 1, wherein the utilizing instruction (b) includes:</p> <p>(b1) detecting a failed connection;</p> <p>(b2) determining a cause of the failed connection by the client system;</p> <p>(b3) generating a solution based on the cause and the real time connectivity information; and</p> <p>(b4) implementing the solution.</p> <p>Claims 2. The computer readable medium of claim 1 further comprising:</p> <p>(c) utilizing data from a local persistent knowledgebase to establish a connection to the network</p> <p>Claim 4. Canceled</p> <p>Claim 5. The computer readable medium</p>
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<p>method further includes generating a best solution by said inference engine for re-establishing said network connection based on said root cause of said connection failure.</p> <p>5. The method of claim 1, wherein said collecting real-time connectivity information further includes</p> <p style="padding-left: 40px;">monitoring and collecting network traffic of said client computer system in real time; and</p> <p style="padding-left: 40px;">generating a weighted list of network traffic having address utilization listed in a descending order.</p>	<p>of claim 4 further comprising the instruction for:</p> <p>(c) storing the weighted list in the client system.</p>
<p>This applies substantially the same to claims 8-14</p>	

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. **Claims 1-14** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of **U.S. Patent No. 7,181,653**. Although the conflicting claims are not identical, they are not patentably distinct from each other because *the inference engine* disclosed in the present application is performing the same function as in *utilizing the real-time connectivity information from client's systems to establish a network connection to a computer network*. Therefore, it is sufficiently to conclude that the present application is an obvious variation of Patent no.: 7,181,653.

Claims of present application	Claims of USPN: 7,181,653
1. A method for re-establishing a network connection for a client computer system after a failed network connection, said method comprising: collecting real-time connectivity information by said client computer system; storing said real-time connectivity	Claim 1. A method for establishing a network connection between a client system and a network comprising: (a) collecting real time connectivity information by the client system, wherein collecting real time connectivity information includes (a1) monitoring and collecting network

<p>information in a local persistent knowledgebase within said client computer system;</p> <p>utilizing said real-time connectivity information by said client computer system to establish a network connection with a computer network;</p> <p>determining whether or not a connection failure occurred at said network connection;</p> <p>in a determination that a failure occurred at said network connection, invoking an inference engine to utilize said real-time connectivity information in said local persistent knowledgebase to re-establish a network connection to said computer network.</p> <p>2. The method of claim 1, wherein said method further includes invoking a verify function by said inference engine to determine status of each communication device within said client computer system.</p>	<p>traffic in real time through an adapter not yet enabled to communicate with the network wherein the network traffic comprises addresses recently assigned by a DHCP server and addresses and names of SOCKS servers;</p> <p>(a2) assigning a weight to the real time network traffic based on utilization;</p> <p>(a3) creating a weighted list from the weighted real time network traffic;</p> <p>(b) utilizing the real time connectivity information collected by the client system and data from a local persistent knowledgebase to establish a connection with the network by</p> <p>(b1) detecting a failed connection;</p> <p>(b2) determining a cause of the failed connection by the client system by analyzing at least one more message associated with the failed connection and</p>
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<p>3. The method of claim 2, wherein said method further includes determining a root cause of said connection failure by said inference engine based on status of each communication device.</p> <p>4. The method of claim 3, wherein said method further includes generating a best solution by said inference engine for re-establishing said network connection based on said root cause of said connection failure.</p> <p>5. The method of claim 1, wherein said collecting real-time connectivity information further includes</p> <p style="padding-left: 40px;">monitoring and collecting network traffic of said client computer system in real time; and</p> <p style="padding-left: 40px;">generating a weighted list of network traffic having address utilization listed in a descending order.</p>	<p>auditing a plurality of communication devices in the client to determine which of the plurality of communication devices is a potential candidate for connectivity;</p> <p>(b3) generating a solution based on the cause and the real time connectivity information; and</p> <p>(b4) implementing the solution.</p> <p>Claim 2. The method of claim 1 further comprising: (c) utilizing data from a local persistent knowledgebase to establish a connection to the network.</p> <p>Claim 3. The method of claim 1 further comprising: (c) utilizing data from a server based database to establish a connection to the network.</p> <p>Claim 4. The method of claim 1, wherein the collecting step (a) further includes: (a1) monitoring and collecting network traffic in real time; (a2) assigning a weight to the real time network traffic based on popularity; and (a3) creating a weighted list</p>
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	from the weighted real time network traffic.
This applies substantially the same to claims 8-14	

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-4, 6, 8-11 and 13** are rejected under 35 U.S.C. 102(e) as being anticipated by **Miller (Patent no.: US 6,742,141 B1)**.

With respect to **claim 1**, Miller teaches a method for re-establishing a network connection for a client computer system after a failed network connection, said method comprising:

collecting real-time connectivity information by said client computer system
(Miller: fig. 5, col. 9, lines 53-64),

storing said real-time connectivity information in a local persistent
knowledgebase within said client computer system (Miller: fig. 5, col. 9, lines 20-64,
noted the customer knowledge base);

utilizing said real-time connectivity information by said client computer system to establish a network connection with a computer network (Miller: col. 9, lines 62-64 and col. 11, lines 2-14);

determining whether or not a connection failure occurred at said network connection (Miller: fig. 11 & 12, col. 14, lines 42-67, noted the symptom includes the internet problem, which inherently has the connection problem).

in a determination that a failure occurred at said network connection, invoking an inference engine to utilize said real-time connectivity information in said local persistent knowledgebase to re-establish a network connection to said computer network (Miller: fig. 7, col. 10 line 59 to col. 11 line 21).

With respect to **claim 2**, Miller teaches the method of claim 1, wherein said method further includes invoking a verify function by said inference engine to determine status of each communication device within said client computer system (Miller, col. 14, lines 9-41).

With respect to **claim 3**, Miller teaches the method of claim 2, wherein said method further includes determining a root cause of said connection failure by said inference engine based on status of each communication device (Miller: fig. 10 and col. 13, lines 39-61).

With respect to **claim 4**, Miller teaches the method of claim 3, wherein said method further includes generating a best solution by said inference engine for re-establishing said network connection based on said root cause of said connection failure (Miller, fig. 10, col. 13, lines 39-61, noted executing the solution).

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With respect to **claim 6**, Miller teaches the method of claim 1, wherein said method further includes

analyzing at least one error message associated with failed network connection (Miller, fig. 8B and col. 14. lines 7-14); and

auditing a plurality of communication devices to determine which of said plurality of communication devices is a potential candidate for connectivity (Miller, col. 14, lines 9-41).

In regard to **claims 8-11 and 13**, the limitations of these claims are substantially the same as those in claims 1-4 and 6, but rather in a computer instruction stored on a computer readable medium form. Therefore the same rationale for rejecting claims 1-4 and 6 is used to reject claims 8-11 and 13. By this rationale **claims 8-11 and 13** are rejected.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 5 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Miller (Patent no.: US 6,742,141 B1)** in view of **Kramer et al. (Patent no.: US 7,096,210 B1)**.

With respect to **claim 5**, Miller teaches the method of claim 1, wherein said collecting real-time connectivity information further includes

monitoring and collecting network traffic of said client computer system in real time (Miller, col. 9, lines 53-64); and

generating a weight to network traffic having address utilization (Miller, col. 10, lines 35-45, noted that from the data collected the severity level of network connectivity problem is assigned).

Miller also teaches a method of providing list for customer knowledge base (Miller, fig. 6). However, Miller fails to teach a method of providing a severity list of the problem collected.

In the same field of endeavor, Kramer teaches a method of providing a severity list of the problem collected (Kramer, col. 27, lines 31-34).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of providing a severity list of the problem collected as taught by Kramer in Miller's invention of the customer's knowledgebase with the advantage being that it would be easier to identify how serious the problem is and effectively execute the best solution to the problem.

In regard to **claim 12**, the limitations of this claim are substantially the same as those in claim 5. Therefore the same rationale for rejecting claim 5 is used to reject claim 12. By this rationale **claim 12** is rejected.

9. **Claims 7 and 14** are and are rejected under 35 U.S.C. 103(a) as being unpatentable over **Miller (Patent no.: US 6,742,141 B1)** in view of **Farrow et al. (Patent no.: US 6,374,295 B2)**.

With respect to **claim 7**, Miller teaches all the claimed limitations except that he does not explicitly teach a method of analyzing real time connectivity information to determine a range of IP addresses assigned by a DHCP server; generating a plurality of IP addresses within said range of IP addresses; and selecting and assigning one of said plurality of IP addresses to said client computer system if said one IP address is not in use.

In the same field of endeavor, Farrow teaches a method analyzing real time connectivity information to determine a range of IP addresses assigned by a DHCP server (Farrow, col. 1 lines 29-32); generating a plurality of IP addresses within said range of IP addresses (Farrow, col. 1 lines 25-44); and selecting and assigning one of said plurality of IP addresses to said client computer system if said one IP address is not in use (Farrow, col. 1 lines 25-44).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to implement Miller's method for generating a solution with Farrow's method of assigning IP addresses to client systems. A person of ordinary skill in this art would have been motivated to make the modification because DHCP simplifies management by eliminate the need for the network administrator to manually configure the network (Farrow: column 1, lines 26-29).

In regard to **claim 14**, the limitations of this claim are substantially the same as those in claim 7. Therefore the same rationale for rejecting claim 7 is used to reject claim 14. By this rationale **claim 14** is rejected.

10. **Claims 1-4, 6, 8-11 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Miller (Patent no.: US 6,742,141 B1)** in view of **Wall et al. (PGPUB No.: US 2003/0142633 A1)**.

With respect to **claim 1**, Miller teaches a method for re-establishing a network connection for a client computer system after a failed network connection, said method comprising:

collecting real-time connectivity information by said client computer system (Miller: fig. 5, col. 9, lines 53-64),

storing said real-time connectivity information in a local persistent knowledgebase within said client computer system (Miller: fig. 5, col. 9, lines 20-64, noted the customer knowledge base);

utilizing said real-time connectivity information by said client computer system to establish a network connection with a computer network (Miller: col. 9, lines 62-64 and col. 11, lines 2-14).

determining internet symptom (Miller: fig. 11 & 12, col. 14, lines 42-67).

in a determination of internet symptom, invoking an inference engine to utilize said real-time connectivity information in said local persistent knowledgebase to re-

establish a network connection to said computer network (Miller: fig. 7, col. 10 line 59 to col. 11 line 21).

However, Miller does not explicitly disclose a method of determining whether or not a connection failure occurred at network connection.

In the same field of endeavor, Wall teaches a method of determining whether or not a connection failure occurred at network connection (Wall: page 5, paragraph 46).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of determining the network connection as taught by Wall in Miller's invention in order to create a list tasks to be fixed by the technician (Wall: page 5, paragraph 47).

With respect to **claim 2**, Miller teaches the method of claim 1, wherein said method further includes invoking a verify function by said inference engine to determine status of each communication device within said client computer system (Miller, col. 14, lines 9-41).

With respect to **claim 3**, Miller teaches the method of claim 2, wherein said method further includes determining a root cause of said connection failure by said inference engine based on status of each communication device (Miller: fig. 10 and col. 13, lines 39-61).

With respect to **claim 4**, Miller teaches the method of claim 3, wherein said method further includes generating a best solution by said inference engine for re-establishing said network connection based on said root cause of said connection failure (Miller, fig. 10, col. 13, lines 39-61, noted executing the solution).

With respect to **claim 6**, Miller teaches the method of claim 1, wherein said method further includes

analyzing at least one error message associated with failed network connection (Miller, fig. 8B and col. 14, lines 7-14); and

auditing a plurality of communication devices to determine which of said plurality of communication devices is a potential candidate for connectivity (Miller, col. 14, lines 9-41).

In regard to **claims 8-11 and 13**, the limitations of these claims are substantially the same as those in claims 1-4 and 6, but rather in a computer instruction stored on a computer readable medium form. Therefore the same rationale for rejecting claims 1-4 and 6 is used to reject claims 8-11 and 13. By this rationale **claims 8-11 and 13** are rejected.

11. **Claims 5 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Miller (Patent no.: US 6,742,141 B1)** in view of **Wall et al. (PGPUB No.: US 2003/0142633 A1)** and further in view of **Kramer et al. (Patent no.: US 7,096,210 B1)**.

With respect to **claim 5**, Miller teaches the method of claim 1, wherein said collecting real-time connectivity information further includes

monitoring and collecting network traffic of said client computer system in real time (Miller, col. 9, lines 53-64); and

generating a weight to network traffic having address utilization (Miller, col. 10, lines 35-45, noted that from the data collected the severity level of network connectivity problem is assigned).

Miller also teaches a method of providing list for customer knowledge base (Miller, fig. 6). However, the combined method of Miller and Wall fails to teach a method of providing a severity list of the problem collected.

In the same field of endeavor, Kramer teaches a method of providing a severity list of the problem collected (Kramer, col. 27, lines 31-34).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of providing a severity list of the problem collected as taught by Kramer in the combined method of Miller's and wall's invention of the customer's knowledgebase with the advantage being that it would be easier to identify how serious the problem is and effectively execute the best solution to the problem.

In regard to **claim 12**, the limitations of this claim are substantially the same as those in claim 5. Therefore the same rationale for rejecting claim 5 is used to reject claim 12. By this rationale **claim 12** is rejected.

12. **Claims 7 and 14** are and are rejected under 35 U.S.C. 103(a) as being unpatentable over **Miller (Patent no.: US 6,742,141 B1)** in view of **Wall et al. (PGPUB No.: US 2003/0142633 A1)** and further in view of **Farrow et al. (Patent no.: US 6,374,295 B2)**.

With respect to **claim 7**, the combined method of Miller and Wall teaches all the claimed limitations except that he does not explicitly teach a method of analyzing real time connectivity information to determine a range of IP addresses assigned by a DHCP

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server; generating a plurality of IP addresses within said range of IP addresses; and selecting and assigning one of said plurality of IP addresses to said client computer system if said one IP address is not in use.

In the same field of endeavor, Farrow teaches a method analyzing real time connectivity information to determine a range of IP addresses assigned by a DHCP server (Farrow, col. 1 lines 29-32); generating a plurality of IP addresses within said range of IP addresses (Farrow, col. 1 lines 25-44); and selecting and assigning one of said plurality of IP addresses to said client computer system if said one IP address is not in use (Farrow, col. 1 lines 25-44).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to implement the combined method of Miller's and Wall's method for generating a solution with Farrow's method of assigning IP addresses to client systems. A person of ordinary skill in this art would have been motivated to make the modification because DHCP simplifies management by eliminate the need for the network administrator to manually configure the network (Farrow: column 1, lines 26-29).

In regard to **claim 14**, the limitations of this claim are substantially the same as those in claim 7. Therefore the same rationale for rejecting claim 7 is used to reject claim 14. By this rationale **claim 14** is rejected.

Response to Arguments

13. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Liu whose telephone number is (571) 270-1447. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. L./
/Lin Liu/

Examiner, Art Unit 2145

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145